

ADVANCES IN SHAPE AND TOPOLOGY OPTIMIZATION OF STRUCTURES AND MATERIALS

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ABSTRACT

This mini-symposium is seeking to create a great opportunity and provide a communication platform to bring together researchers, who are working in a broad range of aspects of shape and topology optimization methods and applications. We particularly encourage submissions addressing recent advances in shape and topology optimization of interdisciplinary areas, spanning fluidics, thermal, and electromagnetism, as well as solids, structures and materials. We therefore invite and appreciate the submission of abstracts and papers in, but not limited to, the following topics:

- Level set-based shape and topology optimization methods
- New methods and applications of shape and topology optimization

- New modelling and simulation methods for shape and topology optimization
- Shape and topology optimization subject to stress and manufacturing constraints
- Shape and topology optimization under uncertainty
- Multi-material and multi-component structural optimization methods
- Multi-physics and multi-scale topology optimization methods
- Multi-objective topology optimization methods
- Application of topology optimization in biomedical engineering
- Application of topology optimization in nanotechnology
- Application of topology optimization to the design of microstructures
- Application of topology optimization to the design of micromechanisms